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THE MACHRIS BRAZILIAN EXPEDITION

ENTOMOLOGY: Two New Species of *Anacroneuria* (Plecoptera)

from Goiás, Brazil

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Stoneflies of the genus *Anacroneuria* occur commonly throughout most of Central and South America. There are numerous species, and many of them are difficult to identify. In two earlier papers (Jewett, 1958 and 1959) comments are offered on some of the systematic problems involved in classifying members of this genus. It is sufficient to state here that the color pattern of head and pronotum and the shape of the distal border of the female subgenital plate appear to be the most reliable morphological characters to distinguish the species.

Stonefly material taken by the Machris Expedition² contains two species of *Anacroneuria* which do not fit existing descriptions. These are described below.

Unless otherwise noted all specimens have been softened after having been pinned and are now preserved in alcohol. Specimens are deposited in the Museu Nacional do Brasil (MN), the Los Angeles County Museum (LACM), and the writer's collection (SGJ).

Anacroneuria dourada n. sp.

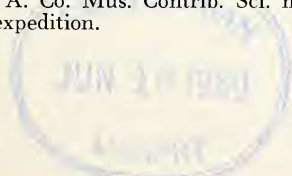
(Figs. 1, 1A)

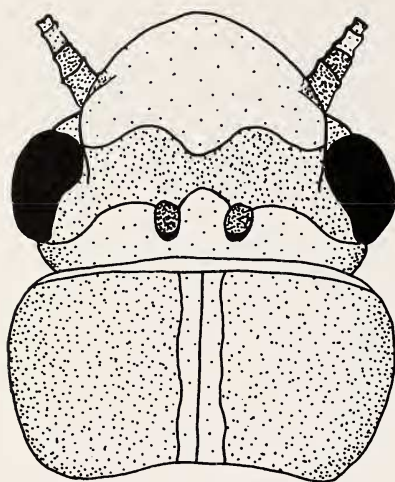
Length of forewing, 15.5 to 16 mm. in female, 11 mm. in male.

Head mostly brown, females showing pattern as follows in specimens relaxed and placed in alcohol after originally being pinned: entire frons brown; M-line faintly discernible as lighter shade; area lateral to and behind ocelli light brown, almost yellow; lightest area adjacent to and of

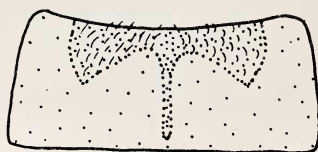
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²See L. A. Co. Mus. Contrib. Sci. no. 12 for general account of the entomology of the expedition.

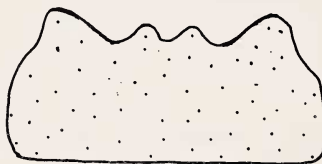
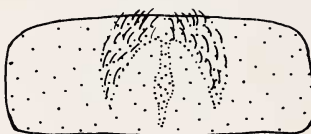




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Figs. 1-1A. *Anacroneuria dourada* n. sp. 1, Head and Pronotum. 1A, Eighth and ninth sternites. Fig. 2. *Anacroneuria galba* n. sp., eighth and ninth sternites.

about same size as ocelli; lappets very dark distally; head of males almost uniformly brown. Pronotum brown with narrow, median, light-brown or yellow stripe occupying possibly an eighth of pronotal width. Legs with outer faces light to dark brown, the tibiae darker than femora. Tarsi brown. Tails distinctly bicolored except first two or three segments; wings tinged lightly brown; veins brownish, the subcostal vein darkest.

FEMALE:—In specimens cleared in KOH and somewhat flattened, the subgenital plate four-lobed, the median notch V-shaped and deep compared to shallow lateral notches. Sclerotized area of ninth sternite in typical T-shape, the stem long and narrow, the entire area covered with fine short hairs.

MALE:—Smaller and darker than female and with small conical nail on ninth sternite.

The head and pronotal color pattern, and the shape of the female subgenital plate form a combination of characters that separate this species from described species of *Anacroneuria*.

COLLECTION DATA:—Holotype female, 24 kilometers east of Formoso, Goiás, Brazil, 9-VI-56, F. S. Truxal (MN). Allotype male, same data except 23-V-56 (MN). Paratypes as follows: Same data as allotype, female (pinned, LACM); same data except 26-V-56, male, 2 females (SGJ); same data except 29-V-56, 2 females (female, SGJ; pinned female, LACM); same data except 9-VI-56, 2 females (female, SGJ; pinned female, LACM); 20 kilometers north of São João da Aliança, Goiás, Brazil, 28-IV-56, F. S. Truxal, female (pinned, LACM).

***Anacroneuria galba* n. sp.**

Fig. 2

Length of forewing, 14 to 17.5 mm. in female, 10 to 11 mm. in male.

Head yellow, darkest on lappets, without pattern, the ocelli ringed in black. Pronotum yellow with irregular, broad, brown stripe on either side occupying about half total width of each disc; lateral borders of pronotum yellow; central yellow stripe occupying about one third of pronotal width. Legs and tails yellow. Antennal segments bicolored, but dark areas not sharply delineated. Wings tinged lightly with yellow, the costal vein not darker than others.

FEMALE:—In specimens cleared in KOH and somewhat flattened, the subgenital plate four-lobed, the notches of about equal depth. Sclerotized area of ninth sternite in typical T-shape, the arms thick and covered with long hairs.

MALE:—Smaller than female and with conical nail on ninth sternite.

This species resembles several others with similarly marked heads and pronota described from Mexico, Central America, and northern South America. In both color pattern and shape of the female subgenital plate it is, for example, similar to *A. crenulata* Jewett described from Mexico

and Central America. It differs from this and other species, however, in details of the shape of the subgenital plate and apparently in being yellower in color.

COLLECTION DATA:—Holotype female, Veadeiros, Goiás, Brazil, 30-IV-56, F. S. Truxal (MN). Allotype male, 24 kilometers east of Formoso, Goiás, Brazil, 26-V-56, F. S. Truxal (MN). Paratypes as follows: Same data as allotype except 19-V-56, female (SGJ); same data except 26-V-56, 2 males, female (male, female, SGJ; pinned male, LACM); same data except 29-V-56, female (LACM); same data except 6-VI-56, male (SGJ); same data except 9-VI-56, male (pinned, LACM).

Provisionally identified with this species are the following specimens which were kindly made available for study by the Museu Nacional do Brasil: Serra da Bocaina, 1300 meters, parque de criação de trutas, São Paulo, Brazil, III-54, D. Albuquerque e Rego Barros, male (MN); Reserva do Museu, Santa Tereza, Espírito Santo, Brazil, 13-XI-55, N. Santos, J. Machado, A. Barros, 3 males, 4 females (male, 2 females, SGJ; 2 males, 2 females, MN); Além Paraíba, Minas Gerais, Brazil, J. Morjen, female (MN). These differ in being darker in color with brownish wing veins, the costal veins darkest, and in having the median notch in the subgenital plate of the female somewhat greater in depth than the lateral notches.

Literature Cited

Jewett, S. G., Jr.

- 1958. Stoneflies of the genus *Anacroneuria* from Mexico and Central America (Plecoptera). Amer. Midl. Nat. 60(1): 159-175.
- 1959. Some stoneflies from Santa Catarina, Brazil (Plecoptera). Ibid. 61(1): 148-161.